uniformly past the inner surface of the exhaust tube 85, the deposition of byproducts on the inner surface, which would otherwise accumulate and impede the coupling of the ionizing radiation, make it unnecessary to frequently clean the exhaust tube 85.

IN THE CLAIMS:

Please cancel claim 74.

Please substitute the following amended claims for the corresponding original claims. A marked copy of the claim amendments is attached hereto.

1. (amended five times) A process chamber for processing a substrate in a process gas and reducing emissions of hazardous gas to the environment, the process chamber comprising:

(a) a support capable of supporting the substrate;

(b) a gas distributor capable of introducing process gas into the process chamber;

(c) a gas activator capable of activating the process gas to perform a process in the process chamber thereby forming effluent containing hazardous gas;

(d) an exhaust tube through which the effluent may be flowed, the exhaust tube adapted to provide a non-circuitous and non-turbulent flow of effluent therethrough by being substantially projections or recesses (i) that alter the flow direction of the effluent to provide a circuitous flow of effluent through the exhaust tube, or (ii) that cause turbulence in the flow of the effluent through the exhaust tube; and

(e) a microwave energy applicator to couple microwaves to the effluent flowing through the exhaust tube to reduce the hazardous gas content of the effluent.

40. (once amended) The apparatus of claim 10 wherein the exhaust tube is substantially absent projections or recesses (i) that alter the flow direction of the effluent to provide a circuitous flow of effluent through the exhaust tube, or (ii) that cause turbulence in the flow of the effluent through the exhaust tube.

47. (once amended) The apparatus of claim 46 wherein the sapphire comprises monocrystalline sapphire.

50. (once amended) The process chamber of claim 11 wherein the exhaust tube is substantially absent projections or recesses (i) that alter the flow direction of the effluent to provide a circuitous flow of effluent through the exhaust tube, or (ii) that cause turbulence in the flow of the effluent through the exhaust tube.

56. (once amended) The process chamber of claim 24 wherein the exhaust tube is substantially absent projections or recesses (i) that alter the flow direction of the effluent to provide a circuitous flow of effluent through the exhaust tube, or (ii) that cause turbulence in the flow of the effluent through the tube.

66. (once amended) The process chamber of claim 26 wherein the exhaust tube is substantially absent projections or recesses (i) that alter the flow direction of the effluent to provide a circuitous flow of effluent through the exhaust tube, or (ii) that cause turbulence in the flow of the effluent through the exhaust tube.